



Mangrove Cicada
(*Cicada interclusa*)

Butterfly &
Other
Invertebrates Club Inc.
Newsletter

ISSUE NO: 37

DATE: JUNE 2005

ISSN: 1326-0006

<http://www.connectqld.org.au/boic>

CLUB PLANNING AND ORGANIZING GROUP - 2005

PLANNING AND ORGANIZATION MEETINGS

CONTACT ADDRESS AND MEMBERSHIP DETAILS

<h2 style="margin: 0;">AIMS OF ORGANIZATION</h2>
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NEWSLETTER DEADLINES

COVER DRAWING

PRESIDENT'S POSTING

Welcome to our 37th issue. It promises to be as good a read as usual thanks to the diversity of Club members and supporters who provide information, to Daphne Bowden who puts in all the effort to compile the newsletter, and to Lois Hughes who provides the delightful illustrations. We aim to make the information as accessible as possible in easy to read language, while being scientifically accurate. Please feel free to offer your observations.

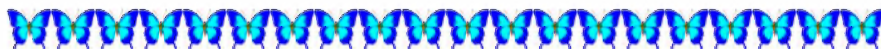
Given the continually rising costs that we all face, including our Club, we have, unfortunately, had to increase our membership fees. Individual membership will now be \$15 and Families and Organisations / Schools \$20 per annum. This is the first increase in three years. We hope that you will continue to find your membership value for money.

Thanking you for your continued support.

Helen Schwencke

IN THIS ISSUE

Creature Feature - Mangrove Cicada (<i>Arunta interclusa</i>)	4
Plant Profile - Grey Mangrove (<i>Avicennia marina</i>)	5
President's Report for 2004.....	7
Excursion Reports - Bonni and John Reichelt's property - 20 th March 2005.....	11
Clay Gully - 9 th April 2005	12
Brookfield State Forest - 21 st May 2005	13
Development of Club's Newsletter CD.....	14
Book Report - Create More Butterflies.....	15
Note re Revised Host Plants of S.E. Qld. and Nthn. NSW	16
Australian Native Bees - Bee Specific	17
Reports - Woodford Folk Festival Tree Planting Weekend.....	19
A Recent Art Exhibition at the Redlands Art Gallery	20
Letters	20
Publications available from the B.O.I.C.	21
Ads and Exchanges.....	22
B.O.I.C. Programme	22



Mangrove Cicada (*Arunta interclusa*)

This rather striking cicada (body about 3cm long with a wingspread of 9cm) is distributed along the east coast of Queensland and NSW from Cooktown to about Coffs Harbour. It is unusual in so far as its habitat is almost exclusively mangroves, and in particular the Grey Mangrove (*Avicennia marina*), where males perch on the upper branches and trunk emitting a very characteristic female calling song.

The colours are quite striking – head and thorax a bright green, with the grossly swollen tymbal covers and abdomen entirely covered by a fine white powder-like pubescence.

The song is a continuous high-pitched drone (as distinct from the lower pitched croaky rattle of the White Drummer) which carries for some considerable distance through the mangroves and can be distinctly heard by landward observers. Singing occurs throughout the day, whether sunny or overcast, and at dusk.

Two other species, namely *Arunta perulata* (the White Drummer) and the green form of *Psaltoda plaga* (the “Black Prince”) also utilise mangroves, but not exclusively, as more landward species such as banksias and casuarinas also play host.

For years it was thought that the Mangrove Cicada females laid eggs in the mangroves and the developing nymphs attached themselves to the roots and lived in sealed tunnels below the tidal ebb and flow. However no nymphal exuviae (shells) were ever found on the mangroves, so another explanation had to be elucidated. The closely related White Drummer shells were found on the banksias and casuarinas that they inhabited.

When I lived and worked in Hervey Bay in the early 80’s I indulged in a little beach fishing and I noticed that some fishermen were using cicadas, found in the sand dunes, as live bait (from memory with not much success!). I looked carefully around and noticed many cicada shells attached to the stolons of beach spinifex (*Spinifex hirsutus*) suggestive of a host relationship. It wasn’t long before I found my first live specimens (all females as it happened) clinging to the spinifex. At that time I wasn’t sure if they had only just emerged or whether they had flown to the dunes to oviposit. It was intriguing that no males were found at the same location, although a couple of the shells appeared to have the characteristics of males. There was obviously more to the life history story yet to uncover!

A few years later while light trapping on Moreton Island with the Queensland Naturalists’ Club, a couple of female Mangrove Cicadas flew in. This was totally unexpected because the site of the light trap was almost in the centre of the island with mangroves 2 or 3 km to the west and beach dunes (with spinifex) 2 or 3 km to the



east. I made an assumption that the specimens had been attracted by the light whilst they were flying between mangroves and dune spinifex.

For a moderately large species of cicada such as this, it is odd that the developing nymph could utilise the sap from such a small root system as has beach spinifex. However, a much smaller cicada species from southern NSW, *Cicadetta arenaria* or “Sand Fairy”, does indeed breed on beach spinifex, which adds credibility to this hypothesis. More definitive observations are required to further elucidate the full life history of this intriguing species.

Reference:

John Moss

Moulds M.S. 1990 Australian Cicadas – Publisher N.S.W. University Press

PLANT PROFILE

Excerpt from **The Mangroves around Jacobs Well** a booklet compiled by the staff of Jacobs Well Environmental Education Centre **Grey Mangrove – *Avicennia marina***

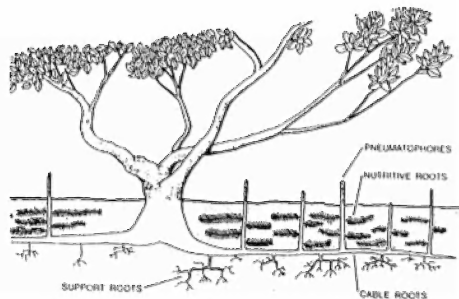
The Grey Mangrove has a distinctive grey colour on the underside of the leaves and the bark. The bark usually has lichens growing on it.

The tree copes with salt in a variety of ways:

- Storing the excess salt in the leaves that are shed returning the salt to the environment.
- Excluding up to 90% of salt through the root system.
- Secreting salt through glands on the underside of the leaf where its small “hairs” remove the salt from the leaf surface.

The tree has roots that stick up out of the mud and help it breathe especially during the high tide. These roots are called pneumatophores.

The Grey Mangrove has the ability to change branches into main trunks if they fall over. In this way the trees can be very

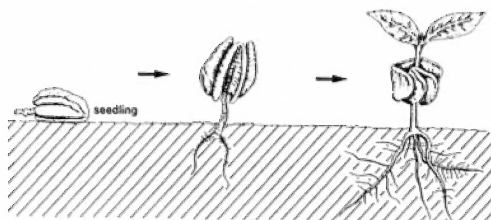


Cross section of Grey Mangrove showing root system



old with holes and old broken trunks. Sometimes the tree has aerial roots that grow from the branches, they may only be a few centimetres long.

The tree's fruit germinates while still attached to the parent plant forming a propagule. When it falls to the ground it already has its first set of leaves and roots curled up ready to unfurl.



Early growth habit of Grey Mangrove seedling

The Grey Mangrove can live in any part of the mangrove area including the seaward and saltmarsh zones as it can tolerate the least favourable conditions. When growing in the salt marsh zone it is usually stunted as a shrub to only a metre tall. It is one of the major pioneer species, being the first mangrove seedling to grow in new muddy areas.

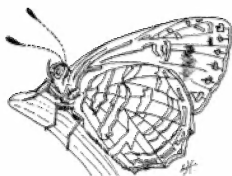
The Grey Mangrove's fruit has a "skin" that covers it and acts like a life jacket when it falls from the tree. These fruits were cooked and eaten by Australian Aboriginal people and are quite bitter.

NOTE: As well as playing host to the Mangrove Cicada, the Grey Mangrove also, at times, supports colonies of the rare and threatened Mangrove or Illidge's Ant-blue butterfly. The larvae of this butterfly live with their *Crematogaster* species ant hosts, in galleries within the trunk and branches of older trees. The butterfly larvae actually eat the larvae and pupae of the ants, the adults of which, for some unexplained reason, don't interfere with the process!

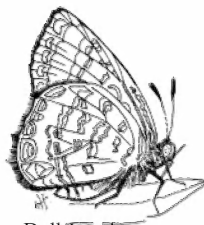
Two other striking butterflies have larvae which feed on the Grey Mangrove leaves, namely the Copper and Mangrove Jewels (*Hypochrysops apelles* and *H. epicurus*).

Yet another butterfly, the iridescent blue, Satin Azure (*Ogyris amaryllis*) has larvae which feed on mistletoes which grow as hemiparasites on the Grey Mangrove.

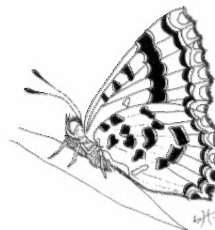
John Moss



Copper Jewel



Dull Jewel



Copper Jewel



PRESIDENT'S REPORT FOR 2004

Delivered (in part) to the AGM held on 9th April, 2005, at Eprapah Scout Environment Centre, Victoria Point.

I believe we can congratulate ourselves on having reached a 10 year milestone. We are now a well-established club with a growing reputation for the information we provide. Our main focus has been on our continuing community education role through our newsletter, excursions and activities, displays, the range of booklets that have been produced and our website.

An interesting new development for the Club originated from an exchange between Lee Byrnes and Daphne Bowden on the ANBees (Australian Native Bees) email discussion list. This has resulted in the inclusion of articles about native bees in a number of recent issues. The group is now also able to hold displays and information stands and be covered by insurance as part of our Club, without having to set up a whole new structure. By this means the ANBees email discussion list is hoping to make information about native bees accessible to people who don't use computers and email. Thanks goes to those conducting stalls, the authors of the articles and to Martyn Robinson for scientific referencing and checking. Also, to help make the Club more accessible to people interested in Native Bees, we have made a minor change to the objects of our constitution so that native bees are now mentioned specifically. We hope to keep building this relationship cooperatively.

Out of the blue, in the fourth school term last year, I received a phone call from Amanda Grimmett in the UK. She was developing a school-based project that involved children, parents, teachers, a not-for-profit organisation, and the local community, and that was based on an environmental theme. Amanda, with the help of her mother, Stell, a teacher at Pullenvale State School, and Alisha Steward, a new Club member and ecologist, set up a project whereby children at Pullenvale State School learned to identify a range of "everyday" insects, were sponsored for the record, and raised money to purchase butterfly host plants for a garden, equipment for a greenhouse and made a donation to our Club. We'd like to thank Amanda for her very creative efforts.

Our on-going program of activities has included:

- Continuing visits to member's butterfly gardens:
 - in the first instance the June 2004 activity was to that of Frank Jordan and my garden by way of marking a return to the Club's beginnings
 - March 2005 saw us visiting Bonni & John Reichelt's place at Nerang. This became a combined activity with a number of other Gold Coast groups, including SGAP and Greening Australia. Although very dry, an outstanding feature was the attractiveness of



Bonni & John's *Micromelum minutum* flowers to a wide variety of insects.

- A winter program of presentations. These included a talk by Peter Chew about his website of Brisbane insects (www.geocities.com/pchew_brisbane/), and one by Peter Davie, Senior Curator (Crustacea) Qld Museum, about Littoral Zone Invertebrates. Our thanks goes to both these presenters.
- A wide variety of excursions, namely
 - a well- attended Marine Invertebrate Excursion to Point Cartwright in September 2004 with Christine Clegg, an independent marine scientist as our interpreter,
 - an excursion to Nudgee Beach, November, 2004 followed by our birthday party and light trapping. Our birthday party was greatly enhanced through the Bagpipe serenade provided by Cory Dale, and the birthday cake that was made by Sarah Willoughby. Two guests from the UK joined us in this event. They had found out about our Club via the Internet.
 - a Bioluminescence excursion to Springbrook, February 2005, including a visit to the glow-worm cave at "Forest of Dreams" with thanks to Errol Barnes. We visited a number of other locations at Springbrook and undertook a spotlight walk after dark.

Our club continued its participation in a range of other organisations' activities. These included:

- A stall as part of the Society for Growing Australian Plants' Flower Show in September;
- Part of our 10th birthday celebrations held as part of the Pine Rivers Shire's Outdoor and Alive Festival in October. This included an information stall and butterfly release. The butterflies were kindly donated by Ross Kendall of Butterfly Encounters.
- Participation in the Woodford Folk Festival with an information stall during the festival, ongoing work on enhancing butterfly and other invertebrate habitat at the folk festival site on the last Sunday of each month, and walks for folk festival participants to show the variety of food plants during the festival itself. Over 85 people participated in the 4 morning walks that were offered. They were greeted by a good show of butterflies, and a liberal sprinkling of caterpillars eating the various host plants on show.
- A continued presence at Brisbane City Council Green Days made possible by Frank Jordan's attendance at these events.
- Participating in the Open Garden Scheme. During the year we had a information stall at Bernie and Rona Wilson's Garden at Sheldon.



The booklets produced in the preceding years have given our Club a great information distribution tool. These booklets now constitute five titles, two new titles having been added during the year. These are:

- A butterfly habitat regeneration project undertaken by a Rockhampton School, and
- Swallowtail butterflies of SE Queensland, designed to support the Club's poster "Lifecycles of the Swallowtail Butterflies of SE Qld and Northern NSW"

A considerable portion of the Club's income continues to be generated by sales of these booklets. Daphne Bowden's efforts in making the compilation of these booklets possible is greatly appreciated. We have now obtained ISBN numbers for these publications and have ensured that they are present in the national bibliographic database, Kinetica.

Our annual membership directory (which includes only those who've agreed to be involved) is providing a networking tool for our members. This is now being made available via email to those with this facility, and post for those who don't. We continue to hope that this will increase the networking between members with forthcoming editions of the directory as more members agree to participate. Please let us know if you would like to be included.

The Club's newsletter, in its 36th issue at the time of this report, has continued to be the main way of providing information to our members. It is also distributed to a number of libraries, where it reaches a much wider audience, some of whom contact us periodically. Thanks goes to Daphne for compiling and distributing this newsletter. In the near future we hope to have a complete collection of newsletters with an index available as a CD version. Thanks goes to Bob James for the work he is currently undertaking.

Over the last 4 issues of our newsletter (up to issue 36, March 2005), approximately 50 items have appeared contributed by 23 different people. Thanks go to Daphne for her continued dedication in making its publication possible. Thanks also goes to Lois Hughes for her delightful illustrations, and to our other occasional illustrators and photo contributors. Also thanks goes to our main article contributors, John Moss, Bob Miller and Lois Hughes. Apparently I am also a major contributor for the past year. Further thanks go to the people who help with regular and occasional contributions throughout the year and helped provide a wider diversity of ideas, information and observations. These people are: Martyn Robinson, Frank Jordan, Murdoch de Baar, Glenn Leiper, Alisha Steward, Peter Hendry, John Klumpp, Lee Byrnes, Jon Marshall, Andrew Atkins, Dennis Bell, Rosamond Dalglish, John Nielsen, Graeme Riddell, June Wimberley, Felix Jenkins, Grace Lithgow, Barbara Tealby, and Hilton Selvey.



We have started to use email messages to our members when various items that may be of interest emerge at short notice. Feedback from this has been positive so far. If you are interested in getting this information, please keep our Club up to date with your current email address. Thanks goes to Daphne for her efforts in providing this information.

Our membership continues around the 180 mark and is drawn from around Australia, though predominantly from the south-east Queensland region, with a number from other states. We also have a few far-flung members around the world.

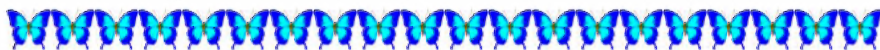
Our Club make has continued with developing newsletter exchanges with other like-minded Australian groups, these now include the Society for Insect Studies based in Sydney, the WA Insect Study Group and Butterfly Conservation SA. In time we hope to further build our networks across Australia.

During the year we have continued our quarterly planning meetings that enable us to bring you this newsletter and program of activities. Thanks goes to the event leaders and also to the Redlands Shire Council and IndigiScapes for making an excellent venue available to community groups at a very affordable price.

Club members have continued to be involved in a wide range of activities on behalf of the Club. Frank Jordan principally, and John Moss have done presentations and workshops on butterflies to a range of other groups, including gardening clubs, revegetation groups and naturalist groups. Other promotional activities have included information stalls at a range of other organisations' functions, including Brisbane City Council Green Days, festivals and information days, such as the Society for Growing Australian Plants Flower Show and at Open Garden Scheme days. These stalls have been principally done by Frank Jordan, Daphne Bowden, John Moss, Peter Hendry, Lois Hughes and myself.

Work on various revegetation projects has progressed apace. This has included the Woodford Folk Festival Butterfly Walk and wetland sites. John Moss has continued his involvement with the Green Corps at the Epraph Environmental Centre.

My particular thanks for the ongoing support the club has received from its members, and goes most especially its management members. These include Rob MacSloy (Treasurer), John Moss (Vice-President), and our hard working, consistent and dedicated Planning Committee: Frank Jordan, Daphne Bowden, Lois Hughes and Peter Hendry. We have been happy to see new faces join our Planning Committee, including Janet Willoughby who has become the Librarian and Jon Marshall and Alisha Steward. Most particularly a Club can't function without someone who helps the information systems work. In our case this is well managed by Rob, who along with being Treasurer has undertaken a number of correspondence, legal responsibilities, sales and distribution functions. Further thanks goes to Daphne for her work already mentioned elsewhere, to Lois for her efforts as the Club's Publicity



Officer, to Peter for filling the Secretarial role and to John for his role as Vice-President and in ensuring scientific accuracy in our newsletter and to Frank for his role as a project officer. Thanks also to those Club members who promote our club and our endeavours in their own activities.

Thanks further goes to our many other supporters who draw the attention of interested members of the public to our Club. This includes the Queensland Museum Inquiry Centre and the Australian Museum in Sydney.

Wishing everyone health and prosperity.

Helen Schwencke

President

EXCURSION REPORTS

Bonni and John Reichelt's property, Gold Coast – 20th March, 2005

Summer this year was long, hot, and very dry. This type of season doesn't lend itself to excursions where many species of butterflies, or other invertebrates for that matter, are able to be seen on the wing. Bonni and John's property, though planted with an excellent diversity of butterfly host plants, and backing onto a large area of bushland, was, unfortunately, also suffering from this weather. On walking through the bushland no sightings of butterflies were reported.

A highlight of this excursion, however, was the numerous butterflies attracted to a flowering specimen of Limeberry (*Micromelum minutum*). These were mostly Lycaenids and included both a worn and a fresh Indigo Flash (*Rapala varuna*), a Short-tailed (formerly Felder's) Line-blue (*Prosotas felderi*), a Small Green-banded Blue (*Psychonotis caelius*), a couple of male Yellow (formerly Common) Albatrosses (*Appias paulina*) and a male Orchard Swallowtail (*Papilio aegeus*). Other butterflies seen in the area included Black (*Delias nigrina*) and Scarlet Jezebels (*Delias argenthona*), Evening Brown (*Melanitis leda*), Orange Ringlet (*Hypocysta adiante*), Blue Tiger (*Tirumala hamata*), Common Crow (*Euploea core*), and a Splendid Ochre (formerly Symmommus Skipper) (*Trapezites symmommus*). Also in a nearby patch of wilting Native Plumbago (*Plumbago zeylanica*), the very reliable Plumbago Blue (*Leptotes plinius*) was on the wing. A larva was also found on one of the few remaining flowers.

A large, final instar, Orchard Swallowtail larva was noticed on one of the outer branches of the Limeberry. Many of those present had never seen nor smelt the distinctive Y-shaped osmeterium that this larva co-operatively extended when we disturbed it.

Our thanks goes to Bonni and John for making our Club welcome to their garden, and for also involving other groups from the Gold Coast region in the activity. This provided an excellent opportunity for the Club to be introduced to a wider audience in the area.

John Moss, Peter Hendry and Helen Schwencke



Clay Gully – Sat. 9th April 2005

Our Annual General Meeting this year was held at the Mungara Visitor Centre, part of the Scouting Association's property Eprapah, located at Victoria Point in the Redland Shire east of Brisbane.

Both before the meeting and afterwards, some members took the opportunity to see the newly designed and planted Butterfly Garden and Senses Trail as well as the adjacent upgraded Arboretum. We did not attempt the Eprapah Creek, Rainforest and Mangrove Boardwalk trails, as time did not really permit and the dry conditions had degraded them somewhat.

However, a small group of us, under the guidance of Rod Murray, local bushcare convener, were led to the nearby site, Clay Gully (a tributary of Mogarrupum Creek), where some of us had released the Swordgrass Brown butterfly (*Tisiphone abeona morrisi*) at the end of last year. This butterfly translocation project (full details of which will appear in subsequent newsletters) has the objective of restoring the species to one of its historical habitats and utilised adult specimens collected from an area near the Gold Coast Airport, earmarked for destruction due to the projected Tugun bypass of the Pacific Highway.

Although quite a large number of butterflies had been released in October and November 2004, none were to be seen on the day. Thus we are unable at this time to confirm if the translocation has been successful. A couple of us have had other searches for what would be the first generation progeny of those released. Two other translocations in recent years (to other sites) have so far failed to produce sightings, but of course if the butterflies were present in low numbers, a probable situation with early generations, they could easily be missed.

What we did find at Clay Gully were thousands of the Swordgrass Brown's preferred hostplant the Creek Sawsedge, *Gahnia clarkei*, all in excellent condition. Also in evidence were a few larval shelters of the beautiful Painted Sedge-skipper *Hesperilla picta* on the same Sawsedge which is also their preferred hostplant. A sheltered spot on a sandbank in the creek, where a few of us had previously seen Karamat (*Hygrophila angustifolia*) growing luxuriantly, had suffered obvious wallaby feeding damage.

Rod took us to see a rare laurel for this area, namely Hard Corkwood (*Endiandra sieberi*), an impressive and beautiful open forest species which, like the sawsedge, prefers sandy soils.

We then briefly moved into three other adjacent vegetation complexes including Mangroves and Saltmarsh before finishing our day. A few common butterfly species were seen, including the aptly-named Common Crow, Evening Brown, Common Grass-yellow, Small Green-banded Blue, Common Brown Ringlet, Black Jezebel and



doubtless a few others that I have since forgotten. Frank reminded me of the fleeting glimpse several of us had of a Jewel which had been perched up high on a Black Wattle. Was it a Fiery Jewel, Blue Jewel or even the elusive Cyane Jewel – of course we will never know?!

This was a pleasant ending for quite a varied but interesting outing – the way AGMs should all eventuate!

John Moss

Brookfield State Forest / Park at Moggill – 21st May

A group of six intrepid club members and friends set out for our most recent excursion on Saturday afternoon, 21st May. Our numbers were diminished by some apologies due to the nasty flu that has been going around. It turned out to be a beautiful autumn afternoon for a walk in the bush and we visited two sites.

Many parts of the State Forest are highly degraded and weed-infested, however, there are some parts that still have a rich diversity of host plants, including Wilkieas, Capparis, Zigzag vines and many others. Also, being late in the season, and after very little rain, not many butterflies were to be seen either on the wing or in the larval stages. However, a number of white butterflies were spotted at a distance, making them too difficult to identify for certain, though they did add ambience of the activity. Those species that came close enough to be identified on the wing included a Yellow Admiral (*Vanessa itea*), Brown Ringlet (*Hypocysta metirius*), Four-barred Swordtail (*Protographium leosthenes*) and one of the Pearl-whites either the Southern Pearl White (*Elodina angulipennis*), or more likely, the Striated Pearl-white (formerly Chalk White) (*E. parthia*). This location had been previously explored by Frank and myself in December last year. The show of butterflies and other invertebrates at that time was brilliant. The site is likely to make a more rewarding summer excursion at some time in the future.

The activity proved very rewarding when David noticed that Sally's pale though bright blue cloth hat was very attractive to the Pearl-white butterflies that were taking advantage of the lovely afternoon sunshine. Sally then placed her hat near eye level on a plant in the sun, and for some time we were treated with a delightful show of up to four Pearl-whites remaining in the vicinity, periodically descending towards the hat and dog-fighting with each other. This observation lends itself to a small experiment that we could do as a club on future excursions. It could be useful to obtain a range of coloured fabric pieces and test them for their attractiveness to various species of butterflies on the wing.

We moved onto a second site closer to the Moggill Ferry crossing. It was a park on the corner of Aitcheson St and Moggill Road. The site is a small wetland, though very dried up at present. It is currently receiving the attention of a Bushcare group and much work is evident on the nearby, slightly higher, areas. Our purpose in visiting this



site was to find a butterfly host plant, *Glinus oppositifolia*, that isn't commonly known or easily found due to its habitat, namely fast disappearing wetlands and swampy areas that have frequently been turned into farm and grazing land. As we crossed the road from our parked cars to the wetland we were graced, unexpectedly, not only by the plant in full view along the road verge, but also by one exemplar of its butterfly, the Spotted Grass-blue (formerly Dark Grass-blue), (*Zizeeria karsandra*), sitting quietly sunning itself in full, but cryptic, view. So our visit to this site was well-rewarded.

Helen Schwencke

YOUR HELP IS WANTED

Development of the Club's Newsletter CD –Adobe Acrobat Needed

Following an appeal in the December, 2004 newsletter for a volunteer to develop a CD of our Club's newsletters we were fortunate to obtain the services of one of our members, Bob James. Bob has been beavering away and has produced a CD that is very useful for our Planning Committee internally. All the newsletters are indexed and linked, and anyone writing an article can quickly see what our newsletter has already covered on a topic. We thank Bob for his work to date. Unfortunately, the CD is not able to be made available publicly as the format doesn't lend itself to easy interpretation.

To be able to produce a CD that we can make publicly available (at our usual low cost) we need to obtain a copy of the computer program, Adobe Acrobat. To buy this outright would cost the club \$500. The Club's committee wants to explore a number of alternatives rather than paying such a large sum outright.

Having the CD produced using Adobe Acrobat will allow viewers to see the newsletters on a computer screen looking very similar to the current printed version that we mail out. The advantage is that you will be able to see the photos in colour, whereas now they are in black & white. Having a copy of this program will also enable us to provide more information on our website.

Do you have a reasonably recent version second-hand copy of Adobe Acrobat that you can give the Club or sell to us at low cost? Or, can you donate some money towards the cost of purchasing a copy?

If so, please contact me, Helen Schwencke, phone: 3844 6677 or email hschwenc@dovenetq.net.au

Thanking you if you can help

Helen Schwencke



BOOK REPORT

Create More Butterflies by Frank Jordan and Helen Schwencke

Reviewed by *Graham J. McDonald*

This 84 page soft cover guide to 48 butterflies and their host plants for south-eastern Queensland and northern New South Wales has been published by Earthling Enterprises.

The book was written by Frank Jordan and Helen Schwencke and represents the culmination of 15 years of study and work relating to the 48 most common or interesting butterflies of this area. Abundant colour photographs were taken by the authors as well as by Glenn Leiper, John T. Moss, Bob Miller and Lorna and David Johnstone.

The authors are deeply concerned by the rapid destruction of wildlife habitat (including invertebrate habitat) occurring at the present time in south-eastern Queensland. Realising that the jewels of the insect world are in trouble, due to the rapid decline in their host plants, Frank and Helen put together a superb manual of information, colourfully presented, in order that the average landholder can better manage habitat in their gardens and bushland areas to attract more butterflies.

The knowledge of butterfly host plant species is now well-known. What this book achieves is the bringing together of the complete story of how to grow the main host plant for each of the 48 butterflies and how to identify the larvae and pupae of each butterfly. (They are illustrated as full colour photos.) The other relevant information is written in an interesting, easy to digest format. There are no less than 256 full colour plates of butterflies and their host plants, larvae, and pupae. This is a remarkable record of perseverance and patience, considering that most photos are of live insects on the wing which do not co-operate with photographers.

A little over half of the book is devoted to the 48 butterflies which people can readily attract to their area by planting host species. The rest of the book deals with interesting and useful information on almost all aspects of raising butterflies and observing their behaviour and interactions with other animals and plants. These sections are written in an anecdotal style with many personal observations and short stories. Many of these stories are presented for the first time. Some of these sections are illustrated by Lois Hughes whose vivid black line drawings add interest. Lois also provided the original colour paintings for the front and back covers – a useful selling point. Seven natural areas around Brisbane where butterflies can be regularly observed are described. These areas support many butterfly host plants which are also detailed. All of these areas are accessible to the public and many are undergoing restoration by enthusiastic volunteers.



A brief but comprehensive list of resources appears at the back of the book along with a useful index and contacts for like-minded organisations and individuals. This book would appeal to

- Butterfly enthusiasts
- Wildlife carers
- Bushcare volunteers
- Educationists
- Native plant growers
- Land for Wildlife holders
- Anyone with a love for nature

The authors, Frank and Helen, as well as a close network of other people (mainly BOIC members) are to be congratulated on producing a colourful, interesting and more importantly, a book containing useable information to add to our ever-expanding knowledge base on the natural world of our area.

We all hope that books such as this will produce a ripple effect, enlightening others to help protect our beautiful and yet fragile natural areas.

This invaluable book is available to BOIC members at \$22.45 plus \$4 postage and handling. Non-members will pay \$24.95 plus \$4 postage and handling. Orders can be sent to BOIC, PO Box 2113, RUNCORN, QLD 4113.

Note re revised book “Butterfly Host Plants of South-east Queensland and Northern NSW

In our last newsletter we drew our membership’s attention to the revised edition of this popular book. An earlier draft of the preface was used giving details of the changes, additions etc. and we mentioned that the plant list had “increased by 53 to a total of 380 species”. This was a slight underestimate, as the real increase was by 80 to total 407 native and exotic species for 203 species of butterfly.

We mentioned that we have now included references for most of the plants where illustrations of them appear in other publications, which our members would either have copies of, or could easily access. In most cases we have included the page number where the illustration appears in that reference. The following is a list of those publications –

Mistletoes and Root Parasites, 2005. Auth: Grace Lithgow

Pub. Chinchilla Field Naturalists’ Club

A Garden on the Wing, CD-ROM, Auth.: Garry Sankowsky 2002

Australian Rainforest Plants Volumes 1 to 6 (I to VI), Auth.: Nan and Hugh

Nicholson .Pub. Terania Rainforest Publishing, The Channon, NSW 2480



Mangroves to Mountains, Auth.: Logan River Branch of Society for Growing Australian Plants. 2002 (photos Glenn Leiper)
Pub. Copyright Publishing Co. G.P.O. Box 2927, Brisbane 4001
Mangroves to Mountains, Vol.2 in prep.
Field Guide to the Native Plants of Sydney 2nd Ed. 1994. Auth.: Les Robinson.
Pub. Kangaroo Press, 3 Whitehall Rd., Kenthurst NSW 2156
Wild Plants of Greater Brisbane. Auth.: Queensland Museum 2003
Pub. Qld. Mus. P.O. Box 330, South Brisbane, Qld. 4101

We also briefly mentioned the reverse index, which is a whole new section, listing under each butterfly all its local native plants, both natural and cultivated, plus many non-invasive exotics and non-local natives grown in this region. Most of these plants are referenced back to the section in the first part of the book, in which they appear in detail.

At 52 pages, the book is now twice the size of the first edition and far more comprehensive and user friendly. To cover costs we have had to increase the price by a few dollars, but at \$8.50 it is excellent value.

John Moss

AUSTRALIAN NATIVE BEES

Bee Specific

In the last issue of the BOIC Newsletter I presented a rather whimsical, even sentimental introduction to Australian Stingless Beekeeping. It was my intention to provide a brief insight into the attractions of keeping these fascinating insects from a personal perspective and hopefully to inspire an interest in others as well. In that initial article I could provide no more than a general overview of the bees themselves, but now it is time to be a little more specific.

Australia is home to about 12 species of stingless social bees, contained within two genera: *Trigona* and *Austroplebeia*. However, there is some uncertainty, particularly within the group *Austroplebeia*, as to whether some previously listed species are in fact separate species or just strains or variants caused by local environmental factors or isolation. Even in the more researched *Trigona* group there has recently been a proposal to add a hitherto uncategorized type of bee to the list of 5 established species (*Trigona carbonaria*, *T. hockingsi*, *T. mellipes*, *T. sapiens* and *T. clypearis*). As I understand it this newcomer is to be called *T. davenporti* after a well known stingless beekeeper on the Gold Coast.

If the scientists find species identification difficult then it is doubly so for the amateur, especially when, to the unaided eye, all these bees appear as small black insects with a pale face (due to white or grey facial hair). They range in size from the tiny *T.*



clypearis that has to stretch to make a length of 3.5 mm, to *T. hockingsi*, which, while still at a diminutive 4.5mm long, is nevertheless, our largest stingless bee. Under microscopic examination some distinguishing features become more obvious. For example *Austroplebeia* bees have small yellow or cream body markings. Occasionally the type of hive entrance the bees construct can give a clue to their identity. However, often it is necessary to open the hive to examine the brood structure and arrangement before a species can be positively categorised. No doubt DNA technology will make species identification easier in the future for the scientists, but I can't see the average amateur enthusiast having the necessary equipment to do this tucked away in the shed or spare room.

But not being able to positively identify each species should not diminish our enjoyment of keeping and propagating these social insects. I keep three known species (*T. carbonaria*, *T. hockingsi* and *Austroplebeia australis*) and possibly have a hive or two of *T. davenporti* if the irregular brood comb is anything to go by. *T. carbonaria* is the most widespread species with natural hives being reported as far north as the Atherton Tableland in Queensland and as far south as Bega on the southern coast of New South Wales. In my experience they are by far the stingless bee most likely to be encountered in the South East corner of Qld and are relatively common in the greater Brisbane area. The other *Trigona* bees are more tropical species although *T. hockingsi* does occur naturally as far south as Brisbane. *A. australis* can also be found on the coast near Brisbane but it is to the West of the ranges that this species comes into its own.

In an article of this nature it is not possible to define the characteristics of all the different species of stingless bees (even if I had the expertise necessary to do so). Excellent reference material is available from the Australian Native Bee Research Centre run by Dr Anne Dollin. A catalogue of the publications produced by Dr Dollin is listed on the ANBRC Web Site: <http://www.zeta.org.au/~anbrc/> or by writing to PO Box 74 North Richmond NSW 2754. The ANBRC Website is well worth a visit. It not only provides a wealth of information on native bees (including the hundreds of species of solitary ones that sting), but also includes links to people who sell stingless bee hives. While I'm on the subject of websites I must mention the Group site set up by my beekeeping mate Lee Byrnes: <http://groups.yahoo.com/group/ANBees/> This site provides an excellent online forum for people with an interest in native bees of all kinds.



I have included a photograph to accompany this article (which hopefully is of sufficient clarity to be reproduced) showing 3 of my *T. carbonaria* bees and an introduced honeybee (*Apis mellifera*) gathering pollen from the same Camellia flower. The difference in their size is immediately apparent, but there are other, even more significant (if less obvious), differences in the lifestyles of these two species of social insect.



In a future issue I hope to be able to explain how an understanding of these differences led to the design of housing and propagation techniques suitable for the management of our native bees in artificial hives.

John Klumpp

REPORTS

Woodford Folk Festival Tree Planting Weekend

The Labour Day long weekend in May this year saw Frank and I, supported by our new Club member Tracie and a band of other volunteers planted 200 Birdwing vines along a creek line in the Woodford Folk Festival site. In the process we have been forming a group, Butterfly Boosters, to support butterfly and other invertebrate enhancement for the site. In total, 7895 trees were planted throughout various areas by about 200 volunteers during 4 working bees on the Saturday and Sunday. This activity was led by 22 team leaders. This major effort was undertaken by the Woodford Tree Huggers Group with the support of Becky Wandell for the organizing and planning of the operation.



The weekend is a vibrant hive of activity where all sorts of people with interesting environmental interests aggregate. This year our Club was invited to participate in the



Eco-lodge, along with Hollow Log Homes (for various native animals), Witjuti Grub Nursery (a bush tucker nursery), Brush Turkey Enterprises and many others. So, throughout the two days when not elsewhere occupied, Frank and I had the opportunity to meet some great people. Thanks goes to Alan & Stacey Franks of Hollow Log Homes for this invitation to participate.

On the Saturday afternoon and evening, one of the Tree Hugger group members, Paul Power, sculpted a Richmond Birdwing butterfly in ice. A photo is included. The sculpture was so delightfully attractive to the children present that, although the block of ice was at around minus 18 degrees when Paul started the sculpture, various parts were melted by constant handling before I could get Paul and his sculpture together.

Helen Schwencke

A recent art exhibition at the Redland Art Gallery has caught the attention of visitors of all ages. Included were spectacular scientific illustrations by Geoff Thompson, Queensland Museum, and botanical drawings and paintings of butterflies and other insects by Louise Saunders. Other contributing artists were Thea Baumann, Joachim Froese, Allyson Reynolds, Richard Dunlop, William Yaxley and indigenous painters from North Stradbroke Island – the Saltwater Murris.

Popular with children in particular were the 3D images and multimedia animation of an aphid cloning. Three display cases featured startling insects from around the world, leaving both old and young spellbound.

The Insectary – Walking with Bugs was the title of this unique exhibition, and those who took the opportunity to enjoy it will hopefully enjoy “walking with bugs” in their own backyard for many years to come.

LETTERS

‘Lo Daphne,

I confirm that the climbing vine *Mandevillea*, Alice Dupont, (also known as Chilean Jasmine) (*Mandevilla laxa*) is regularly used by the Common Australian Crow (*Euploea core corinna*) as a larval host plant. I have seen the adult laying eggs on young leaves. The smallest “grub” seen was about 6 mm long. At least three pupated on the vine and emerged there while another moved about 2 m to pupate and subsequently emerge on an iron table. At least 8 more were destroyed when the vine had been almost totally defoliated. I looked in my butterfly bible (Butterflies of Australia and New Guinea, 1951, Charles Barrett and Alex Burns) this morning and found they also listed *Mandevillea* as a crow host. Jasmine is a common name ascribed to flowers other than *Jasminum*.

John Stumm



YOUR CLUB'S MEMBERSHIP DIRECTORY

In February, 2002 your Club's organising committee decided to start encouraging members to network with each other in their local areas, and across their areas of interest. To this end we have now produced a membership directory. Only those members who have given us their permission have been included in the directory.

If you would like to be in a future issue of the directory please email Daphne at bowden@itconnect.net.au or phone: 07 3396 6334

AVAILABLE FROM BOIC

Grow More Butterflies (Revised) –

A selection of articles published in previous Newsletters \$5.50 plus \$1.10 postage

Butterfly Gardening –

A series of articles published in previous Newsletters \$2.20 plus \$1.10 postage

Butterfly Host Plants of SE Qld. and Nth. NSW –

A comprehensive list of host plants for this region \$8.50 plus \$1.10 postage

A Butterfly Habitat Regeneration Project – Details of a project undertaken by a school in Rockhampton \$3.00 plus \$1.10 postage

Swallowtail Butterflies of S.E. Qld. – A companion booklet to the Poster \$4.50 plus \$1.10 postage

Poster -Lifecycles of the Swallowtail Butterflies of South East Queensland,
compiled by the BOIC

Cost: Non-members \$10 plus \$5 postage

Members \$6 plus \$5 postage

The **Butterfly Alphabet Poster** which shows all the letters of the alphabet and numerals 1-9 appearing in the wings of butterflies and moths. This poster can be viewed by visiting www.butterflyalphabet.com

Cost: Non-members \$25 plus \$5 postage

Members \$23 plus \$5 postage

The **Domino Poster** - A guide for field, school or garden with 250 Australian butterfly illustrations in colour

Cost: Non-members \$10 plus \$1.10 postage

Members \$8 plus \$1.10 postage

Create More Butterflies – by Frank Jordan & Helen Schwencke – Members \$22.45 plus \$4 postage & handling – Non-members \$24.95 plus \$4 postage and handling.

CD-ROM – Brisbane and Nearby Areas, Insects and Spiders by Peter Chew.
Available from Peter Chew at 3 Byzance Close, Eight Mile Plains Q. 4113 and also from the B.O.I.C - \$40 incl. postage



CD-ROM – “A Garden on the Wing” –Attracting Birds and Butterflies to your Garden -by Garry Sankowsky - \$22 plus \$2 postage and handling from B.O.I.C. Also available from Zodiac Publications, P.O. Box 210, Tolga, Qld. 4882 or www.rainforestmagic.com.

DVD - Butterflies - Lifecycle and Survival Strategies - produced by the Coffs Harbour Butterfly House available from the B.O.I.C. and also the Coffs Harbour Butterfly House – Members \$12 – Non members \$15 plus \$2 postage and handling.

These items can be obtained from BOIC, PO Box 2113, Runcorn, 4113.

ADS AND EXCHANGES

Limited Edition Prints of the rare and endangered Laced Fritillary delightfully depicted amongst Arrowhead Violets **and also the Joseph’s Coat Moth** are available from Lois Hughes Ph. 3206 6229.

BACK ISSUES

Back Issues of the Club Newsletter are available at a cost of \$2 each plus postage (1-2 copies \$1.10 - 3-6 copies \$1.50).

BUTTERFLY AND OTHER INVERTEBRATES CLUB PROGRAMME

Marine Shells and Molluscs

What: A slide presentation on marine shells and molluscs by Robert Ellis, amateur malacologist ☺ (ie. Someone who studies and enjoys molluscs, he promised some nudibranch slides)
When: Thurs, 23rd June, 7pm – 9pm
Where: IndigiScapes Centre, Runnymede Road, Capalaba (2003 UBD Map 204 Ref L5)
Contact: Helen 3844 6677, email: hschwenc@dovenetq.net.au to RSVP or for more details

Beetles

What: A presentation by Geoff Montieth, Queensland Museum
When: Thurs, 28th July, 7pm – 9pm
Where: IndigiScapes Centre, Runnymede Rd., Capalaba (2003 UBD Map 204 Ref L5)
Contact: Helen 3844 6677, email: hschwenc@dovenetq.net.au to RSVP or for more details

Planning and Management Meeting

What: Our planning meetings are informative and interesting. As well as planning our activities we share lots of information. All members are welcome.
When: Wednesday, 3rd August, 6.30 – 9.00pm



Where: to be advised upon RSVP
Contact: Daphne 07 3396 6334 or email bowden@itconnect.net.au to RSVP or for more details

Freshwater Invertebrates

What: A presentation by Jon Marshall and Alisha Steward on a range of small critters that live in freshwater habitats, or have fresh water larval stages. This presentation is a lead up to an excursion we are planning for later in November to the Conondales.

When: Thurs, 25th August, 7pm – 9pm

Where: IndigiScapes Centre, Runnymede Rd., Capalaba (2003 UBD Map 204 Ref L5)

Contact: Helen 3844 6677, email: hschwenc@dovenetq.net.au to RSVP or for more details

Society for Growing Australian Plants : Spring Flower Show

When: **Saturday & Sunday, 3rd & 4th September, 2005**

Where: Mt Cootha Botanic Gardens Auditorium (2003 UBD Map 158 Ref L14)

What: This is SGAP's annual flower show with displays of native plants from around Queensland and other states. Our Club will conduct an information stall on butterfly host plants

Contact: Daphne 07 3396 6334 or email bowden@itconnect.net.au if you'd like to help out or for more details

Woodford Folk Festival site, Butterfly Boosters Revegetation work

When: last Sunday of each month, starting 8.30am or earlier, overnight camping from Saturday is also possible.

What: The Club is involved with the Woodford Folk Festival regeneration / revegetation work to enhance the plantings for butterflies and other invertebrates.

Where: Woodford Folk Festival site, Woodrow Rd, Woodford (2003 UBD Brisbane Map 33, Ref C13)

Volunteers wanted: We are looking for volunteers to help with site revegetation / regeneration. Volunteering with this work on a monthly basis entitles participants to a free Festival ticket.

Bring: Gardening and watering equipment, morning tea and lunch, or things to share.

Contact: Helen 3844 6677, email: hschwenc@dovenetq.net.au

If you plan to attend one of the above events, please contact the person indicated in case, for some unforeseen circumstance, the event has had to be postponed or cancelled.



DISCLAIMER

The Newsletter seeks to be as scientifically accurate as possible but the views, opinions and observations expressed are those of the authors. The Newsletter is a platform for people to express their views and observations. These are not necessarily those of the BOIC. If inaccuracies have inadvertently occurred and are brought to our attention we will seek to correct them in future editions. The Editor reserves the right to refuse to print any matter which is unsuitable, inappropriate or objectionable and to make nomenclature changes as appropriate.

ACKNOWLEDGMENTS

Producing this newsletter is done with to the efforts of:

- Those members who have sent in letters and articles
- Lois Hughes who provides illustrations including the cover
- Daphne Bowden who works on layout, production and distribution
- John Moss for scientific referencing and proof reading
- Helen Schwencke who developed the overall design

We would like to thank all these people for their contribution

ARE YOU A MEMBER

Please check your mailing label for the date your membership is due for renewal. If your membership is due, please renew as soon as possible.

Membership fees are \$15.00 for individuals and \$20.00 for families, schools and organizations.

Would you please advise bowden@itconnect.net.au if you get/change an email address.

Butterfly and Other Invertebrates Club Inc.

PO Box 2113

RUNCORN Q. 4113

Next Meeting: Marine Shells and Molluscs - Thurs, 23rd June, 7pm – 9pm.
See programme for details

